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January 6, 1998

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, DC 20554

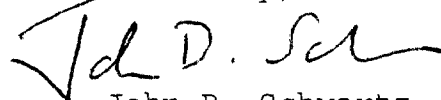
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FEDERAL COMMUNICATIONS COMMISSION
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Re: Comments in MM Docket No. 97-217 -
Amendment of Parts 1, 21 and 74 to
Enable Multipoint Distribution
Service and Instructional Television
Fixed Service Licensees to Engage in
Fixed Two-Way Transmissions

Dear Ms. Salas:

Transmitted herewith are an original and five (5) copies of the
Comments of Instructional Telecommunications Foundation, Inc. in
the above-captioned proceeding. Should you have any questions
with respect to this filing, please contact the undersigned.

Sincerely,



John B. Schwartz
President

Attachments

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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In the Matter of)	
)	MM Docket No.
Amendment of Parts 1, 21 and 74 to Enable)	97-217
Multipoint Distribution Service)	
and Instructional Television Fixed)	File No. RM-9060
Service Licensees to Engage in Fixed)	
Two-Way Transmissions)	

To: The Commission

COMMENTS OF

INSTRUCTIONAL TELECOMMUNICATIONS FOUNDATION

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Introduction

Instructional Telecommunications Foundation, Inc. ("ITF") submits these comments with a number of objectives in mind. We seek rules which: establish the conditions for ITFS to flourish, now and in the future; keep ITFS independent and distinct from commercial services like MMDS or wireless cable; protect the ability of ITFS licensees to respond readily to the needs of the educational communities they serve; and allow ITFS to deploy the latest wireless technologies in the service of education. These latest technologies include two-way digital transmission and frequency reuse techniques, as contemplated in the above-captioned rulemaking.

While ITF generally is supportive of the technical proposals which the Commission has set forth, we believe that in the future, as now, the rules must contain safeguards to insure the integrity of ITFS and the ability of licensees to respond to evolving educational needs.

About ITF

ITF is licensee of seven stations in the Instructional Television Fixed Service: WHR-509, Indianapolis; WHR-527, Philadelphia; WHR-512, Sacramento; WHR-511, Kansas City; WLX-699,

Salt Lake City; WLX-816, Phoenix, and WLX-694, Las Vegas. These ITFS systems' mission is to provide instructional service to elementary and secondary schools. ITF serves both public and private schools, and has operated ITFS stations for more than a decade. ITF has leased excess capacity on most of its stations to wireless cable companies. However, we also have built and operated systems on a purely instructional basis.

SPECIFIC RECOMMENDATIONS

I. ITFS/MMDS Application Processing Issues.

As the Commission has observed, many ITFS licensees believe that application procedures which are suited to large commercial entities are inappropriate for comparatively small educational organizations.¹ At the same time, if new digital technologies are to be employed in a timely fashion, it will be necessary to expedite application processing greatly. Like the petitioners in

¹ See, for example, Notice of Proposed Rulemaking in MM Docket No. 97-217 ("Two Way NPRM") at paragraph 46. Previously, the Commission held that "educational institutions should be treated differently from commercial entities in many situations due to limited financial and staff resources, governmental constraints, and similar factors." Report and Order in Gen. Docket No. 90-54, 5 FCC Rcd 6410, 6411 (1990).

this proceeding, ITF is concerned that existing ITFS processing has proven to be much too sluggish, and that the Commission will be slowed even further by complex showings involving upstream transmission, cellularization, sectorization, etc. ITF's recommendations will endeavor to accommodate these sometimes conflicting imperatives.

A. Initial Filings. ITF concurs with the notion of a one week initial filing window for ITFS and MMDS applications under the new technical rules. We also support the proposal for a 60-day period for reconciling incompatible proposals, and a further period for submitting petitions to deny. However, if ITFS entities are to prepare digital proposals under complex and novel rules, the initial filing window cannot be opened precipitously. We recommend that after the Commission announces the initial window, applicants be allowed at least four months to prepare applications. Similarly, once filings have been finalized after the initial 60-day "reconciliation period," ITF believes that the petition to deny deadline be set no sooner than 90 days thereafter. We believe the Commission should require that applications and all amendments be served on all potentially affected ITFS and MMDS licensees.

B. Automatic Grants. The Petitioners in this proceeding

requested automatic license grants, even of mutually exclusive applications. In the NPRM, the Commission tentatively rejected this proposal.² We can understand the Commission's reluctance, and believe that the petitioners' proposal needs revision, as we will describe below in detail. However, if two-way digital ITFS service is to emerge in more than a few isolated systems, we believe the Commission will have to grant unopposed, non-mutually exclusive applications automatically.

Our reason for supporting automatic grants, subject to safeguards, is rooted in our experience with current ITFS processing. While we cast no aspersions on Commission staff members, and while we appreciate many examples of extraordinary effort on their part, the fact is that ITFS processing simply has overwhelmed the FCC. For example, ITF filed a number of major modifications in the windows that opened in May, September, and October, 1995. While no petitions to deny were filed against any of those modifications, to date half of them remain pending.³

To cite another example, beginning in the summer of 1996,

² Two-Way NPRM, paragraph 49.

³ The Commission identified one of our applications as mutually exclusive with two others and placed all three on cut-off. However, despite the completion of the pleading cycle this summer, the FCC has not ruled on these applications.

ITF filed for one-way digital authorization for six of its seven ITFS systems. These are unusually simple applications, in that they do not increase power or change any operating parameter that can affect D/U signal ratios. No petition to deny was filed against any of these proposals. Until recently, only two of ITF's stations had been granted digital authority; in those cases digital authorization came because we amended a prior-filed modification request to include digital operation, which the Commission later processed. Very recently, two of our "stand-alone" digital minor modifications were granted. Unopposed digital applications for the remaining two stations are still pending.

In the present era, telecommunications services---both educational and commercial---must be nimble. Because of the complexity of two-way digital applications, we can only presume that ITFS processing will slow still further. While we have no philosophical opposition to the Commission's continuing to process all applications, ITF believes that business as usual simply is impractical.

At the same time, we think that the petitioners' plan for automatic grants needs to be revised; in particular we take issue with the recommendation that multiple, mutually exclusive

applications be granted. First, of all, grants of incompatible proposals could lead to the destruction of service to the public due to interference.⁴ Second, given that involuntary modifications applications are allowed in ITFS, it is entirely possible that a group of incompatible proposals could entail the authorization of more than once set of facilities for a single ITFS system; for instance, if an existing licensee requests one modification and an involuntary modification application proposes another, both could be granted automatically.

ITF proposes the following synthesis. During the 60-day "reconciliation period" and the following 90-day period for petitions to deny, applicants, the public, and the Commission staff would review pending proposals for defects and mutual exclusivity. If the Commission staff finds problems with a proposal, it would issue a deficiency letter to the applicant with a deadline for amendment. If the Commission staff finds a mutual exclusivity, it would notify the competing applicants of its finding. During this time, applicants would have the

⁴ While unmodified facilities would be protected under the petitioners' proposals, once an applicant proposes to change its technical configuration, in essence it opens itself to unlimited amounts of interference. This fact could have the perverse effect of discouraging digital two-way applications.

opportunity to petition to deny defective proposals and/or notify the Commission of apparent mutual exclusivities.

Applications which emerge from the petition to deny period without the submission of any petition to deny or allegation of mutual exclusivity would be granted automatically. All others would be processed by the Commission staff, which would select among competing proposals according to the current rules.

C. Subsequent Modifications. We believe that following the initial filing period, subsequent modifications should be processed in the same manner. First, a filing window should be announced at least 120 days in advance. Then a 60-day "reconciliation period" and 90 day petition to deny period should follow, with the same procedures applied as during the initial filing period. We oppose rolling one-day filing windows as inappropriate for an educational service like ITFS.

II. 125 kHz Channels

As the Commission noted,⁵ ITF has opposed any effort to reallocate 125 kHz channels currently associated with ITFS channels to commercial licensees. We further agree with the Commission that no ITFS licensee should be permitted to operate

⁵ Two-Way NPRM, paragraph 59.

more 125 kHz channels than 6 MHz channels. Absent channel swaps, as discussed below, we believe that licensees should retain the 125 kHz channels they are now assigned by virtue of the current Section 74.939(d) of the Commission's Rules.

Nonetheless, we support many of the Petitioners' recommendations concerning 125 kHz channels. Subject to non-interference and the consent of the licensee, we believe that 125 kHz channels should be allowed to transmit downstream as well as upstream, and that, given the far-reaching revisions in ITFS service being contemplated, that the Commission should allow the content of 125 kHz channels to be independent of that transmitted on related 6 MHz channels.

As we expressed in the Reply Comments we filed in response to the Petition for Rulemaking, we believe that ITFS licensees should be allowed to trade 125 kHz channels to create larger contiguous frequency blocks.⁶ We agree with the Commission that subchannelization and superchannelization should be permitted on 125 kHz channels, albeit subject to the same protections which we herein recommend with respect to 6 MHz channels.

⁶ P. 16. For the Commission's convenience, ITF attaches its Reply Comments hereto as Appendix A.

III. Instructional Programming Requirements and Safeguards

Section 74.931(a) of the FCC Rules identifies formal educational and cultural development as the primary purpose of ITFS,⁷ and, over the years, the Commission has taken pains to ensure that ITFS remains educational in character. While new digital architectures will expand the opportunities for education, the need remains to keep ITFS from becoming an essentially commercial service---regardless of whether its signals are transmitted in analog or digital form.⁸

The current provisions of 74.931 require that approximately 25% of ITFS capacity be used for educational purposes, or be readily recaptured for instruction. While some ITFS systems use more than this minimum, we believe that the 25% floor represents a necessary, and modest, floor---since, axiomatically, it allows as much as three-quarters of educational capacity to be used for commercial purposes. In the context of digital operation, we believe that it is acceptable for some of the 25% minimum to be

⁷ Although, reflecting the analog heritage of ITFS, the Rule states that such material is to be in audio and video form.

⁸ See, for example, the critique of the advent of digital video service in ITFÆs Reply Comments in RM-9060 (attached), pp. 11-12, 16.

preserved through the recapture rights of the licensee, just as current Rules provide.

For many months, the National ITFS Association and the Wireless Cable Association International have been negotiating the specifics of a joint policy statement on the question of such a minimum, among other matters. While no agreement has been reached, discussions are continuing. Assuming that no acceptable compromise has been achieved by the deadline for reply comments in this proceeding, ITF will set forth a full set of recommendations for the revision of Section 74.931 to update it for the digital age.

IV. Channel Loading and Channel Trades

ITF supports rule provisions with respect to ITFS content which are similar in effect to those now in place under the channel loading provisions of the Commission's Rules.⁹

First, even if digital statistical multiplexing is employed, we believe that each channel licensed to an ITFS system should contain some licensee-controlled educational content. As we expressed in our Reply Comments, we are opposed to loading all licensee content onto non-licensee channels because we believe

⁹ See Section 74.931(e)(9).

that such a step entails an unacceptable ceding of control.¹⁰

It is all too possible that initial arrangements for delivery of instructional material via the facilities of others will not endure. For example, instructional service could be eliminated due to the expiration of such agreements, the default or insolvency of third parties, and/or the loss of FCC licenses held by others. Since instructional service is the central purpose of ITFS stations, such risks are unacceptable.

We feel that the need for licensees to control educational content over their own facilities is increased by virtue of the fact that the Commission has declined to consider the effect of digital two-way channel loading on renewal expectancy.¹¹

However, just as Section 74.931(e)(9) allows channel loading of some instructional programming on channels licensed by others, we feel that this flexibility should be accorded in a digital two-way environment---with one significant safeguard. To the degree that a licensee finds that its instructional programming is not being transmitted on others' channels in a satisfactory manner, it must have the right thereafter to carry such material

¹⁰ ITF Reply Comments, pp. 14-15. As mentioned, these reply comments are appended hereto as Exhibit A.

¹¹ Two-Way NPRM, paragraph 77.

on its own channels.

As we also expressed in our Reply Comments, we believe that ITFS, MDS and MMDS licensees should be permitted to swap frequencies freely.¹² If an ITFS channel is swapped for a channel which is normally assigned to MDS/MMDS, the former MDS/MMDS channel should be regulated as an ITFS channel, and vice versa. Also, as we expressed in Reply Comments, we believe that ITFS licensees should be required to retain downstream transmitting facilities consisting of at least half of current downstream bandwidth.¹³

V. Insuring Autonomy for ITFS Licensees and the Viability of Instructional Service.

The Commission correctly surmised that there are perils as well as opportunities for ITFS systems in a two-way digital environment.¹⁴ ITF believes that these dangers can be minimized through appropriate safeguards, which we describe below.

¹² ITF Reply Comments, p. 14.

¹³ Id. During the pleading cycle on the Petition for Rulemaking in the proceeding, Caritas Telecommunications recommended that upstream usage be restricted to MDS channels 1, 2, and 2A. We disagree with that proposal because such a restriction likely would deprive ITFS licensees of the opportunity to operate upstream facilities.

¹⁴ Two-way NPRM, paragraphs 78-87.

A. The Scope of Interference Protection. Section 74.902(d) provides service area protection only for the commercial operation of ITFS systems, and only when such commercial activities occur through the lease of excess capacity to a wireless cable operator. This rule simply will not be adequate to protect instructional-only ITFS systems in the type of environment contemplated by the Two-Way NPRM.

In particular, the new rules are intended to promote frequency reuse through techniques such as on-channel boosters, both originating and repeating. A non-cellularized instructional-only ITFS system risks having its coverage capability eroded in Swiss cheese fashion by boosters, with nominal protection provided for its registered receive sites. Because one can provide receive-site protection by antenna upgrades, it is almost always possible to shoehorn in otherwise impermissible ITFS usage. While existing sites are upgraded at the new entrant's expense, further site additions require large receive dishes---each costing thousands of dollars---which must be installed at the licensee's expense, thereby reducing its ability to respond to educational needs in an economical fashion. Without a protected service area, instructional-only systems also risk being hobbled by new sectorized transmissions, upstream

transmissions, and other novel interference sources.

Commendably, the new rules provide interference protection for response hubs operated by instructional-only systems,¹⁵ in recognition that such upstream operations cannot function without protection. As well, for limited purposes a protected service area is assumed for all ITFS stations in the proposed booster rules.¹⁶ However, the new rules, as set forth in the Two-Way NPRM, still fail to protect main channel downstream operation unless an excess capacity lease is in place.

This anomaly is particularly ironic in light of the changes which are likely to occur in instructional service in a two-way digital environment. An ITFS licensee which offers high-speed internet service to schools and business pursuant to a lease with wireless cable operator will receive PSA protection. However, an ITFS licensee which provides precisely the same service on its own will not.

The Commission states flatly that it will not authorize a two-way framework which involves the mandatory participation of

¹⁵ See the Two-Way NPRM proposals with respect to Section 74.939 of the Rules.

¹⁶ See proposed Sections 74.985(b)(1) and 74.985(b)(2).

any ITFS licensee.¹⁷ But the sum of existing and proposed rules is to mandate the leasing of excess channel capacity if an ITFS entity is to be able to operate with any assurance that it will remain free of interference. In sum, no effort to protect the autonomy of ITFS entities and insure their ability to deliver instructional service can be complete until instructional-only systems are accorded interference protection which is equal to that provided pursuant to leasing arrangements.

B. The Nature of Interference Protection. In the Two-Way NPRM,¹⁸ the Commission challenges the assumption of the Petitioners that interference caused by certain facilities need not be cured. We agree with the Commission. When digital facilities actually cause interference to protected service, the remedy is not to explain away the damage with legal arguments; rather the entity causing actual interference must eliminate it.

C. Involuntary ITFS Modification Applications. In response to ITF's Reply Comments, the Commission requested that "parties consider ITF's request that we prevent the filing of involuntary modification applications that jeopardize existing and future

¹⁷ Two-Way NPRM, paragraph 81.

¹⁸ Paragraph 44.

instructional service."¹⁹

The Commission specifically inquired as to what extent involuntary modification applications are currently employed and whether future abuse is anticipated.²⁰ In our Reply Comments, ITF cited the example of an involuntary modification application filed against Denver Area Educational Telecommunications Consortium which we deem to be abusive.²¹ We are aware of the filing of an involuntary modification application against the Archdiocese of Los Angeles Education and Welfare Corporation, although we have insufficient information to offer an analysis of it.

We believe that in the rush to establish digital architectures in certain markets it is likely that a number of involuntary ITFS modification applications will be filed at the behest of wireless cable operators. We do not believe that the furtherance of education will be a significant factor in

¹⁹ Two-Way NPRM, footnote 55. ITF made its request somewhat broadly. It probably is impossible to bar the submission of ill-advised proposals. Rather, the goal should be to establish standards that allow approval only of applications which do not impede instructional service.

²⁰ Id.

²¹ ITF Reply Comments, pp. 10-11.

determining whether or not to file such involuntary modification applications, and thus ITFS service will be jeopardized.

ITF believes that it is useful here to review present Commission policies with respect to involuntary modification applications. The Commission first provided for such applications in 1991 as part of a package of measures contained in the Second Report and Order in Gen. Docket 90-54 (hereinafter the "Second Report and Order"). Collectively, these steps were intended to afford wireless cable operators "a more accommodating regulatory framework" and thus "enhance the potential of wireless cable as a competitive force in the multichannel video distribution marketplace."²²

At the same time, in adopting those measures, the Commission noted that it remained "committed to 'not jeopardize the current or future ability of ITFS to fulfill its primary intended purpose of providing educational material for instructional use.'"²³

[Emphasis added.]

In the proceeding which led up to the Second Report and

²² Second Report and Order, paragraph 1.

²³ Id. This quotation was followed by a footnote citing the First Report and Order in Gen. Docket Nos. 90-54 and 80-113.

Order, some parties urged the Commission to adopt specific tests to determine the practicability of various types of proposed modifications.²⁴ However, the Commission declined, stating: "We will not adopt a specific 'impracticability' standard as proposed in the Further Notice, as we cannot predict at this time the full range of practical considerations that may be interposed. Instead, the Commission will resolve these matters on a case-by-case basis."²⁵

Finally, the Commission's policy is that involuntary modifications be used only as a last resort. In the Second Report and Order, the Commission stated that "...we strongly encourage and expect the cooperation of all parties so that the majority of modifications will be voluntary."²⁶

ITF believes that the principles underlying the Commission's existing policies concerning involuntary modifications remain sound, although they are likely to be applied to different circumstances in a two-way digital environment. First, the bedrock of Commission policy is that both present and future ITFS

²⁴ Id. at paragraph 21.

²⁵ Id. at paragraph 23.

²⁶ Id. at paragraph 24.

service not be compromised. Whereas in the past this criterion involved the continued ability of ITFS systems to transmit downstream, in the two-way environment future service will involve upstream transmissions, cellularization, subchannelization, sectorization, etc. The principal rubric the Commission should apply under these circumstances is that if the grant of an involuntary modification application leaves an ITFS entity less able to respond to present or future instructional needs, such application should be denied. The burden of proof should rest with the applicant which proposes an involuntary change.

Given the complex and innovative technical proposals which are likely to emerge, it probably remains inadvisable to adopt a firm "practicality" test. However, practicality will remain no less a consideration in a two-way digital environment, and impractical involuntary modification applications should be returned.

Finally, the Commission should reaffirm that unless an entity filing an involuntary modification application can document that it has made extensive efforts to negotiate for voluntary modifications, its involuntary modification application will be denied.

D. Involuntary MDS and MMDS Applications. Current Commission Rules provide for the filing of involuntary ITFS applications, but not for involuntary MDS or MMDS applications. However, the adoption of two-way rules will entail intertwining ITFS, MDS, and MMDS channels as never before; for instance, new proposed rules entail authorizing frequency trades of ITFS and MDS frequencies, permitting joint ITFS/MMDS superchannels, allowing both ITFS and MMDS channels to be "turned around" for upstream purposes, and essentially merging rules concerning 125 kHz channels licensed to both ITFS and MMDS entities.

Under these circumstances, it places ITFS licensees at a severe disadvantage if they are permitted to be the objects of involuntary modification applications but remain unable to propose involuntary modifications of MDS and MMDS facilities. We urge the Commission to make involuntary modification rules fully symmetrical with respect to both the ITFS and MMDS services. As with involuntary ITFS applications, the entity proposing to modify MMDS facilities involuntarily would have the burden of demonstrating no impairment of present and future service, practicability, and attempts to negotiate voluntary modifications.

E. Low Power ITFS Boosters Licensed to Lessees. ITF

supports the Commission's proposal to clarify that when lessees operate low power boosters on ITFS channels, those booster authorizations expire with the expiration or termination of the lease.²⁷ We feel that it would be untenable to operate an ITFS system if co-channel boosters are operated within the service area by a former lessee.

F. Commission Oversight Over Leases. The Commission raises the issue of the appropriate level of FCC oversight over matters such as lease agreements. We believe that, if anything, the importance of oversight over leasing will only increase in light of the novel questions which are likely to arise in the new era.

G. The Need for Independent Representation of ITFS Licensees. In its Reply Comments, ITF advocated that the Commission "require that two-way digital applications and interference consents be reviewed by legal and engineering counsel which are responsible only to the affected ITFS entity and do not represent commercial interests." We recommended that these advisors certify that in their opinion that the submission

²⁷ Two-Way NPRM, footnote 54. ITF observes that in the NPRM the appended text of proposed 74.985 appeared to omit language implementing this provision.

would not be harmful to future instructional service.²⁸

We based this recommendation on our observation of that licensees are asked to accept highly detrimental interference, and they not infrequently comply (albeit without an awareness of the implications).²⁹

The Commission requested comment on these issues, and observed that it does not require parties to ITFS lease negotiations to be represented by separate counsel and instead relies upon staff monitoring of leases.³⁰

The matter of interference consents is distinguishable from that of leases. Protective minimum standards for leases are embodied in Commission Rules and policies. It is a comparatively straightforward matter for the staff to evaluate whether a given

²⁸ ITF Reply Comments, p. 17.

²⁹ Id. at pp. 9-10. ITF has not experienced an instance in which any party has coerced us to submit an ill-advised interference consent (although wireless cable operators have attempted coercion in certain other dealings). Typically, wireless operators attempt to limn harmful proposals as routine, and seek approval of them without providing us with interference studies. In one instance, shortly before a cut-off date, counsel for one of our wireless cable lessees FAXed a blank Form 330 signature page to be executed and returned; the idea was that the operator would prepare and submit the application without ITF's knowing the specifics until after filing!

³⁰ Two-Way NPRM, paragraph 86.